

PCN38

ASSESSING THE IMPACT ON STAFF RESOURCE AND PATIENT WAITING TIME OF A SWITCH FROM IV TO ORAL CHEMOTHERAPY: TIME AND MOTION MODEL FOR HTASTaylor H¹, Burcombe R¹, Hill S², Cadwallader S², James R¹¹Kent Oncology Centre, Maidstone, UK; ²Pierre Fabre Ltd, Winchester, Hampshire, UK

OBJECTIVE: Capacity planning is an increasingly important determinant of NHS service delivery, and will be employed by NICE to assess the resource implications of new chemotherapy (CT) treatments. Navelbine[®] (vinorelbine) Oral is an orally administered version of a NICE-approved IV CT. A time and motion methodology evaluated the impact on pharmacy and nursing time, and patient waiting, of a switch from IV to oral CT in a Cancer Centre and Unit. **METHODS:** Three CT regimens were compared: Navelbine IV d1 d8, gemcitabine IV d1 d8, and Navelbine Oral d1 d8, all q21d. IV CT always required an outpatient visit; oral administration on d8 could take place in the clinic or at home. Five administrations were measured for each regimen in each setting and 80% variance calculated. Results were extrapolated to three cycles of treatment. **RESULTS:** Administration of Navelbine Oral was less time consuming in both the Cancer Centre and Unit. Pharmacy time in the Centre was reduced from 3 h to 1 h. The Cancer Unit was able to dispense on site rather than rely on a remote compounder. Nursing time was reduced from 6 h to 1 h 18 mins in the Centre and from 4 1/2 h to 36 mins in the Unit. Total patient visit time was reduced from 26 h 18 mins to 7 h 39 mins in the Centre and from 12 h 54 mins to 9 h in the Unit. **CONCLUSIONS:** Delivery of oral CT is less resource intensive and time consuming than IV CT and reduces overall patient waiting in hospital. A switch from IV CT to Navelbine Oral, with home administration on d8, resulted in a four-fold increase in the capacity of the day unit, and a three-fold increase in the number of prescriptions prepared by pharmacy. The methodology provides a quantitative measure of comparative capacity that could be used as part of future health technology assessments.

PCN39

APPLICATION OF AN ALGORITHM FOR DEFINING RETROSPECTIVE COHORTS OF COLORECTAL CANCER (CRC) PATIENTS TREATED WITH DIFFERENT FIRST-LINE CHEMOTHERAPY REGIMENS +/- BEVACIZUMAB TO ADMINISTRATIVE CLAIMS DATACisternas MG¹, Mrad R², Noe LL¹, Miller DP¹, Guyan C¹¹Ovation Research Group, Highland Park, IL, USA; ²F. Hoffmann-La Roche Ltd, Basel, Switzerland

OBJECTIVES: To apply a previously described algorithm for defining cohorts of CRC patients treated with first-line chemotherapy agents +/- the targeted therapy bevacizumab to an administrative health insurance claims database. **METHODS:** Claims records for 717 patients newly diagnosed for CRC in 2003 or 2004 who initiated chemotherapy during 2004 were extracted from a large U.S. health care claims database. By applying a previously defined algorithm (see "Development of an algorithm for the identification and classification of colorectal cancer (CRC) patients according to first-line chemotherapy +/- bevacizumab using administrative claims records") these patients were classified according to five, mutually exclusive, first-line chemotherapy regimens +/- bevacizumab. **RESULTS:** Of the 717 patients identified, 709 (99%) could be assigned to one of the first-line chemotherapy categories: oxaliplatin (25%); irinotecan+bolus 5-FU/LV (2%); irinotecan+infusional 5-FU/LV (1%); irinotecan+5-FU/LV (bolus vs. infusion not distinguishable) (5%); and 5-FU/LV or capecitabine alone (66%). Each cat-

egory was further subdivided according to whether bevacizumab was administered during the first month of chemotherapy. Of the 97 patients with a J9999 ("antineoplastic drug not elsewhere classified") HCPCS claim in 2004, 12 had only one such claim and therefore bevacizumab vs. cetuximab could not be identified; all but 2 of the remaining had their J9999 claims identified definitively. Seventy patients incurred a J9999 claim within their first-line therapy: assignment to bevacizumab, cetuximab, and unknown was 63, 1, and 6, respectively. Eighty patients (11%) received second-line therapy. **CONCLUSIONS:** First-line chemotherapies for CRC can be identified in health insurance claims data through a careful examination of CPT, HCPCS, and revenue center codes and the intervals between them. However, distinguishing bolus vs. infusion regimens is challenging due to inconsistent coding of ambulatory pump and IV push claims. Newly approved agents billed under a "not otherwise classified" code can be distinguished if their costs or intervals of administration differ substantially.

PCN40

DEVELOPMENT OF AN ALGORITHM FOR THE IDENTIFICATION AND CLASSIFICATION OF COLORECTAL CANCER (CRC) PATIENTS ACCORDING TO FIRST-LINE CHEMOTHERAPY +/- BEVACIZUMAB, AND INITIATION OF SECOND-LINE THERAPY USING ADMINISTRATIVE CLAIMS RECORDSCisternas MG¹, Mrad R², Noe LL¹, Miller DP¹, Guyan C¹¹Ovation Research Group, Highland Park, IL, USA; ²F. Hoffmann-La Roche Ltd, Basel, Switzerland

OBJECTIVES: To develop an algorithm for defining cohorts of newly diagnosed CRC patients according to first- and second-line chemotherapy regimen and the use of bevacizumab using administrative claims records. **METHODS:** A three-step process was used to create algorithms for first-line chemotherapy regimens and the use of the anti-angiogenic agent bevacizumab: 1) a literature review and consultation with clinicians was performed to define common treatment patterns in CRC (medication and dosage, modes and timing of administrations); 2) coding of chemotherapy agents and modes of administration were mapped through review of CPT, HCPCS, and UB-92 revenue center coding guides; 3) coding of agents, modes of administration, and medication dose by cost proxy was refined through empirical review of all claims associated with chemotherapy and CRC diagnoses in a sample of the data. **RESULTS:** Patients were identified as having newly-diagnosed CRC during a qualifying period if they had an ICD-9-CM claim for malignant CRC preceded by a 12-month period without any CRC claims. Five first-line chemotherapy regimens were identified: oxaliplatin+5-FU/LV, irinotecan+bolus 5-FU/LV, irinotecan+infusional 5-FU/LV, irinotecan+5-FU/LV (bolus vs. infusion not distinguishable), and 5-FU/LV or capecitabine alone (without oxaliplatin or irinotecan). Bevacizumab did not have a specifically assigned billing code in 2004 but could be differentiated from another agent approved for the treatment of metastatic CRC in the second line—cetuximab—through examination of the frequency of administration and medication cost. The initiation of second-line therapy was defined as change to/addition of any of the following agents thirty days after starting first-line therapy: irinotecan, oxaliplatin, or cetuximab. **CONCLUSIONS:** Retrospective cohorts of CRC patients treated with different chemotherapy agents and bevacizumab can be identified in claims data through examination of ICD-9-CM, CPT, HCPCS, and revenue center codes, as well as frequency of administration and cost of chemotherapy.